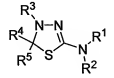
**AMENDMENT TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A method for inhibiting a mitotic kinesin Eg5 which comprises administering an effective amount of a thiadiazoline derivative represented by the general formula (I) or a pharmacologically acceptable salt thereof: ~~A mitotic kinesin Eg5 inhibitor which comprises a thiadiazoline derivative represented by the general formula (I) or a pharmacologically acceptable salt thereof as an active ingredient:~~



(I)

~~wherein:~~

$R^1$ represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl,

or a substituted or unsubstituted heterocyclic group;

$R^2$ represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, ~~or~~

a substituted or unsubstituted heterocyclic group,

-C(=W)$R^6$, ~~{~~wherein W represents an oxygen atom or a sulfur atom, and $R^6$ represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic group,

-$NR^7R^8$, ~~{~~wherein $R^7$ and $R^8$ are the same or different and each represents a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic

group,

or $R^7$ and $R^8$ are combined together with the adjacent nitrogen

atom to form a substituted or unsubstituted heterocyclic

group),

-$OR^9$, (wherein $R^9$ represents a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic group), or

-$SR^{10}$, (wherein $R^{10}$ has the same meaning as that of the aforementioned

$R^9$)),

-$NR^{11}R^{12}$, ((wherein $R^{11}$ and $R^{12}$ are the same or different and each represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl,

a substituted or unsubstituted heterocyclic group,

-$C(=O)R^{13}$, ((wherein $R^{13}$ represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl,

a substituted or unsubstituted heterocyclic group,

$-NR^{14}R^{15}$, (wherein $R^{14}$ and $R^{15}$ are the same or different and each represents a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic group, or

$R^{14}$ and $R^{15}$ are combined together with the adjacent nitrogen atom to form a substituted or unsubstituted heterocyclic group),

$-OR^{16}$, (wherein $R^{16}$ has the same meaning as that of the aforementioned $R^{9}$), or

$-SR^{17}$, (wherein $R^{17}$ has the same meaning as that of the aforementioned $R^{9}$)], or

$R^{11}$ and $R^{12}$ are combined together with the adjacent nitrogen atom to form

a substituted or unsubstituted heterocyclic group}, or

$-SO_2R^{18}$, {wherein $R^{18}$ represents

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic group}, or

$R^1$ and $R^2$ are combined together with the adjacent nitrogen atom to form a

substituted or unsubstituted heterocyclic group,

$R^3$ represents

a hydrogen atom, or

$-C(=Z)R^{19}$, [wherein Z represents an oxygen atom or a sulfur atom, and $R^{19}$

represents a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl,

a substituted or unsubstituted heterocyclic group, or

$-NR^{20}R^{21}$, {wherein $R^{20}$ and $R^{21}$ are the same or different and each represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic group, or

$R^{20}$ and $R^{21}$ are combined together with the adjacent nitrogen atom to form

a substituted or unsubstituted heterocyclic group),

$-OR^{22}$ (wherein $R^{22}$ represents

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic group), or

$-SR^{23}$, (wherein $R^{23}$ has the same meaning as that of the aforementioned $R^{22}$)],

$R^4$ represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic group, and

$R^5$ represents

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic group, or

$R^4$ and $R^5$ are combined together to represent $-(CR^{25A}R^{25B})_{m1}Q(CR^{25C}R^{25D})_{m2}-$,

wherein

Q represents a single bond, or

a substituted or unsubstituted phenylene or cycloalkylene,

m1 and m2 are the same or different and each represents an integer of from 0 to 4, with the proviso that m1 and m2 are not 0 at the same time,

$R^{25A}$, $R^{25B}$, $R^{25C}$ and $R^{25D}$ are the same or different and each represents

a hydrogen atom,

a halogen,

a substituted or unsubstituted lower alkyl,

$-OR^{26}$, wherein $R^{26}$ represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl,

a substituted or unsubstituted heterocyclic group,

$-CONR^{27}R^{28}$, (wherein $R^{27}$ and $R^{28}$ are the same or different and each represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic group, or

$R^{27}$ and $R^{28}$ are combined together with the adjacent nitrogen atom to form a substituted or unsubstituted heterocyclic group),

$-SO_2NR^{29}R^{30}$, (wherein $R^{29}$ and $R^{30}$ have the same meanings as those of the aforementioned $R^{27}$ and $R^{28}$, respectively), or

$-COR^{31}$, (wherein $R^{31}$ represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic group)},

$-NR^{32}R^{33}$, {wherein $R^{32}$ and $R^{33}$ are the same or different and each represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl,

a substituted or unsubstituted heterocyclic group,

$-COR^{34}$, {wherein $R^{34}$ represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl,

a substituted or unsubstituted heterocyclic group,

a substituted or unsubstituted lower alkoxy,

a substituted or unsubstituted aryloxy, amino,

a substituted or unsubstituted lower alkylamino,

a substituted or unsubstituted di-(lower alkyl)amino,

or a substituted or unsubstituted arylamino), or

$-SO_2R^{35}$, (wherein $R^{35}$ represents

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic group)],

or $-COOR^{36}$, (wherein $R^{36}$ represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic group), or

$R^{25A}$ and $R^{25B}$, or $R^{25C}$ and $R^{25D}$ are combined together to represent

an oxygen atom, and

when m1 or m2 is an integer of 2 or above, any of $R^{25A}$, $R^{25B}$, $R^{25C}$ and $R^{25D}$ may be the same or different, and any two of $R^{25A}$,

$R^{25B}$, $R^{25C}$ and $R^{25D}$ which are bound to the adjacent two carbon atoms may be combined to form a bond~~}~~>.

2. (Currently Amended) The method ~~The mitotic kinesin Eg5 inhibitor~~ according to claim 1, wherein $R^2$ is -C(=W)$R^6$, ~~(~~wherein W and $R^6$ have the same meanings as those mentioned above, respectively~~)~~.

3. (Currently Amended) The method ~~The mitotic kinesin Eg5 inhibitor~~ according to claim 2, wherein $R^6$ is a substituted or unsubstituted lower alkyl.

4. (Currently Amended) The method ~~The mitotic kinesin Eg5 inhibitor~~ according to claim 1, wherein $R^3$ is -C(=Z)$R^{19}$, ~~(~~wherein Z and $R^{19}$ have the same meanings as those mentioned above, respectively~~)~~.

5. (Currently Amended) The method ~~The mitotic kinesin Eg5 inhibitor~~ according to claim 4, wherein $R^{19}$ is a substituted or unsubstituted lower alkyl.

6. (Currently Amended) The method ~~The mitotic kinesin Eg5 inhibitor~~ according to claim 1, wherein $R^5$ is a substituted or unsubstituted aryl, or a substituted or unsubstituted aromatic heterocyclic group.

7. (Currently Amended) The method ~~The mitotic kinesin Eg5 inhibitor~~ according to claim 1, wherein $R^5$ is a substituted or unsubstituted aryl.

8. (Currently Amended) The method ~~The mitotic kinesin Eg5 inhibitor~~ according to claim 1, wherein $R^4$ is a substituted or unsubstituted lower alkyl, or $-(CH_2)_nNHSO_2R^{24}$, (wherein n represents 1 or 2, and $R^{24}$ represents a substituted or unsubstituted lower alkyl, a substituted or unsubstituted lower alkenyl, an amino, a lower alkylamino, or a di-(lower alkyl)amino).

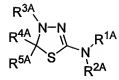
9. (Currently Amended) The method ~~The mitotic kinesin Eg5 inhibitor~~ according to claim 1, wherein $R^4$ and $R^5$ are combined together to represent $-(CR^{25A}R^{25B})_{m1}Q(CR^{25C}R^{25D})_{m2}-$, (wherein $R^{25A}$, $R^{25B}$, $R^{25C}$, $R^{25D}$, m1, m2, and Q have the same meanings as those mentioned above, respectively).

10. (Currently Amended) The method ~~The mitotic kinesin Eg5 inhibitor~~ according to claim 9, wherein Q is a substituted or unsubstituted phenylene.

11. (Currently Amended) The method ~~The mitotic kinesin Eg5 inhibitor~~ according to claim 1, wherein $R^1$ is a hydrogen atom.

12. (Currently Amended) The method ~~The mitotic kinesin Eg5 inhibitor~~ according to claim 1, wherein W and Z are oxygen atoms.

13. (Currently Amended) A thiadiazoline derivative represented by the general formula (IA) or a pharmacologically acceptable salt thereof:



( IA )

~~wherein~~ $R^{1A}$ represents a hydrogen atom,

$R^{2A}$ represents

a hydrogen atom or

$-COR^{6A}$, ~~(wherein $R^{6A}$ represents~~ a substituted or unsubstituted lower alkyl~~)~~, or

$R^{1A}$ and $R^{2A}$ are combined together with the adjacent nitrogen atom to form a substituted or unsubstituted heterocyclic group,

$R^{3A}$ represents $-COR^{19A}$, ~~(wherein $R^{19A}$ represents~~ a substituted or unsubstituted lower alkyl~~)~~,

$R^{4A}$ represents

$-(CH_2)_pNR^{4AA}R^{4AB}$, ~~[wherein~~

p represents 1 or 2, and

$R^{4AA}$ and $R^{4AB}$ are the same or different and each represents

a hydrogen atom,

a lower alkyl or cycloalkyl, ~~(with the proviso that when $R^{2A}$ is $-COR^{6A}$, $R^{6A}$ and $R^{19A}$ are tert-butyl and $R^{5A}$ is phenyl, $R^{4AA}$ and $R^{4AB}$ are not methyl at the same time)~~],

$-(CH_2)_pNR^{4AD}COR^{4AC}$, ~~(wherein~~ p has the same meaning as that mentioned above, $R^{4AC}$ represents a hydrogen atom, a lower alkyl, or a lower alkoxy, and $R^{4AD}$ represents a hydrogen atom or a lower alkyl~~)~~, or

$-(CH_2)_pNHSO_2R^{24A}$, ~~(wherein~~ p has the same meaning as that mentioned above,

$R^{24A}$ represents

$-(CH_2)_qNR^{24AA}R^{24AB}$, {wherein q represents an integer of from 0 to 5, and $R^{24AA}$ and $R^{24AB}$ are the same or different and each represents a hydrogen atom, a substituted or unsubstituted lower alkyl or cycloalkyl, {with the proviso that when $R^{2A}$ is $-COR^{6A}$, $R^{6A}$ is tert-butyl and $R^{19A}$ is methyl or tert-butyl, neither of $R^{24AA}$ and $R^{24AB}$ is methyl, and if one of $R^{24AA}$ and $R^{24AB}$ is a hydrogen atom ~~in this case~~, the other is not ethyl or hydroxyethyl}},

3-chloropropyl,

3-azidopropyl, or

lower alkenyl, {with the proviso that when $R^{2A}$ is $-COR^{6A}$, $R^{6A}$ is tert-butyl and $R^{19A}$ is methyl or tert-butyl, $R^{24A}$ is not vinyl}}, and

$R^{5A}$ represents a substituted or unsubstituted aryl or a substituted or unsubstituted aromatic heterocyclic group>.

14. (Original) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein $R^{5A}$ is substituted or unsubstituted aryl.

15. (Original) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein $R^{5A}$ is phenyl.

16. (Previously Presented) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein $R^{2A}$ is $COR^{6A}$, and $R^{6A}$ is unsubstituted lower alkyl.

17. (Previously Presented) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein $R^{2A}$ is $COR^{6A}$, and $R^{6A}$ is tert-butyl.

18. (Previously Presented) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein $R^{19A}$ is unsubstituted lower alkyl.

19. (Previously Presented) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein $R^{19A}$ is tert-butyl.

20. (Currently Amended) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein $R^{4A}$ is $-(CH_2)_pNR^{4AA}R^{4AB}$, (wherein p, $R^{4AA}$ and $R^{4AB}$ have the same meanings as those mentioned above, respectively).

21. (Currently Amended) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein $R^{4A}$ is $-(CH_2)_pNR^{4AD}COR^{4AC}$, (wherein p, $R^{4AC}$ and $R^{4AD}$ have the same meanings as those mentioned above, respectively).

22. (Previously Presented) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein $R^{4A}$ is $-(CH_2)_pNHSO_2R^{24A}$, (wherein p and $R^{24A}$ have the same meanings as those mentioned above, respectively).

23. (Previously Presented) A medicament which comprises the thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13 as an active ingredient.

24. (Canceled)

25. (Canceled)

26. (Previously Presented) A method for inhibiting a mitotic kinesin Eg5 which comprises administering an effective amount of the thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13.

27.-28. (Canceled)